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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,754	12/09/2003	Dennis R. Morrison	MSC-23659-1	1992
24957	7590	12/14/2005	EXAMINER	
NASA JOHNSON SPACE CENTER MAIL CODE HA 2101 NASA RD 1 HOUSTON, TX 77058			RAO, G NAGESH	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,754

Applicant(s)

MORRISON, DENNIS R.

Examiner

G. Nagesh Rao

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 9-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 4 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1) Claims 9-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/5/05.

Claim Objections

2) Claims 4 and 26 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The aforementioned claims fail to further limit the structure of the apparatus and instead refers to the differentiation in the product worked upon by the apparatus (the uniform co-axial multi-lamellar microspheres having substantially different viscosities).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 3) Claims 1-8 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US Patent No. 4,251,195) in view of Suzuki (PG Publication 2004/0051192) in further view of Trail (US Patent No. 5,383,776).

Suzuki 195 teaches an apparatus for making miniature capsules (reads on as capable of producing microcapsules) wherein it is taught in Figure 1 a dual dispenser system (1, 2), microcapsule forming tip (11 and 11a), a fluidized cooling medium passage (7) where the microcapsules flow into the cooling medium once formed and travel to net like separator (13) for assortment after being harvested and washed through the cooling medium, and a recirculation conduit (15) that is

capable of recycling one or more fluids back to the dual dispenser system (Col 3 Lines 29-35).

Suzuki 195 fails to teach a flow sensor and a controller configured to operate the apparatus.

In an apparatus pertaining to microcapsule production, Suzuki 192 teaches a flow regulator means as seen in Figure 1 (Section 0072) where the outflow of capsules can be determined via a difference in height adjustment between the liquid surfaces at the lower position and the upper position and whereby the flow rate of the hardening liquid (10) in the flow duct (11) can be adjusted to an arbitrary optimal position.

At the time of the present invention it would have been obvious to one with ordinary skill in the art to modify the teachings of Suzuki 195 with that of Suzuki 192 to incorporate a flow regulator means to take advantage of production and collection rates of the microcapsules.

However the hypothetical device surmised by the combination of Suzuki 195 and Suzuki 192 does not teach the use of a photometer as the flow sensor nor explicitly teach a controller such as a CPU system for operating the device.

In an apparatus pertaining to polymer gel analysis, Trail 776 teaches that it is well known to use an analytical tool such as a photometer which can be used for

analyzing particles and submitting the data to a central computer system for data analysis and processing (See Col 6 Lines 35-62, Col 7 Lines 38-50, and Col 8 Lines 49-66) (Examiner would like to note that photometers have been known to be used in analyzing microcapsule products as indicated in Miyazawa US Patent No. 6,391,288 Col 12 Lines 28-35).

At the time of the present invention it would have been obvious to one with ordinary skill in the art to modify the teachings of Suzuki 195 and 192 with that of Trail 776 to incorporate an analytical tool means to analyze the microspheres which are generally made of a polymeric material in order to ensure quality and quantity production of the polymer pellets as well to operate the machine via a computer control system for collection and review of the data to determine optimal processing conditions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GNR



ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300 1722

12/12/05